

REMARKS

Claims 1-20 are pending in this application. By this response, claims 1, 5, 9 and 11 have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1-3, 5-9 and 11-14 are rejected under 35 U.S.C. §102(e) as allegedly anticipated by Gau (U.S. Pat. No. 6,949,440). Specifically, the Office Action asserts that "...the well region includes outer well regions 44/48 of the second conductivity type and an inner well region 46 of the first conductivity type." Office Action, p. 3. Concerning this rejection, Applicants submit that Gau does not anticipate the claims of the present application because Gau fails to disclose each and every element of the claimed invention. In particular, with respect to amended independent claims 1 and 9, Applicants submit that Gau fails to disclose, *inter alia*, "a well region located in said upper region of said substrate, wherein said well region includes outer well regions of said second conductivity type and an inner well region of said first conductivity type, each well of alternating conductivity type of said well region is separated at an upper surface by an isolation region and each outer well region has an upper surface which includes a source/drain region." (*See* claim 1, and as similarly recited by claim 9.) Instead, Gau discloses two consecutive wells having the same conductivity type. In Gau, "P-type dopants and N-type dopants are then implanted into the substrate 40, respectively, to form at least a P-type ion well 44 in the CMOS region I, at least an N-type ion well 46 in the CMOS region I, and at least an N-type ion well 48 in the varactor region II." Col. 4, lines 25-30. As

shown in FIG. 11 of Gau, consecutive wells 46 and 48 are both N-type ion wells. In contrast, and in the claimed invention, each well of the well region has an alternating conductivity type. For example, as clearly shown in FIG. 1D of the present invention, the well region of alternating conductivity comprises first N-well region 20A, P-well region 20B, and second N-well region 20C. Gau, however, fails to disclose this claimed feature. Therefore, Applicants submit that Gau fails to disclose each and every element of the claimed invention and respectfully request withdrawal of the rejection under 35 U.S.C. §102(e).

With respect to claims 5 and 11, Applicants submit that Gau does not anticipate the claims of the present application because Gau fails to disclose each and every element of the claimed invention. Specifically, with respect to claims 5 and 11, Applicants submit that Gau fails to disclose, *inter alia*, “the varactor structure of Claim 1 wherein each well region extends beneath the isolation region to the subcollector such that neighboring well regions are in contact with each other along the entire extension of each well region beneath the isolation region.” (*See* claim 5, and as similarly recited by claim 11.) Instead, Gau discloses wells that are separated by portions of the substrate. FIG. 11 of Gau shows wells 44, 46 and 48 that are each separated from each other by substrate 40 and isolation regions 50. As each well in Gau extends beneath isolation region 50 towards buried N-type doping region 42, the thickness of substrate 40 between each well increases. Accordingly, Gau clearly fails to disclose, *inter alia*, well regions that are in contact with each other along the entire extension of each well region beneath the isolation region. Therefore, Applicants submit that Gau fails to disclose each and every element of the claimed invention and respectfully request withdrawal of the rejection under 35 U.S.C. §102(e).

With respect to dependent claims 2-4, 6-8 and 12-14, Applicants herein incorporate the arguments presented above with respect to the independent claims from which the claims depend. The dependent claims are allowable based on the above arguments, as well as for their own additional features.

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,



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